



COLORADO

**Division of Reclamation,
Mining and Safety**

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

July 13, 2018

Mr. Mike Schaffner
Cripple Creek & Victor Gold Mining Company
P. O. Box 191
Victor, CO 80860

**Re: Cripple Creek & Victor Mining, Co., Cresson Project, M-1980-244;
Review of Record of Construction Report, VLF2 Recertification Report, Subgrade and
Geomembrane 9650 – 9750' Elevations.**

Dear Mr. Schaffner:

The Division of Reclamation, Mining and Safety (Division) has completed the review of the Construction Report, VLF2 Recertification Report, Subgrade and Geomembrane 9650 – 9750' Elevations dated July 3, 2018. These comments reflect the Division's concerns as it relates to Rule 7.3.2(2) of Mineral Rules and Regulations of The Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations (requiring the Operator to provide a certified verification by a professional engineer intended to confirm that the facility was repaired in accordance with the originally approved designs and specifications). Pursuant to Rule 7.3.1(5), no chemicals used in the extractive metallurgical process or toxic or acid-forming materials ... shall be placed in constructed facilities until the Board or Office accepts the certification of the facility, or phase thereof, that precedes placement. The following comments need to be addressed prior to the Division accepting the submitted report:

Report text:

1. Sect 3.4.1 SLF Testing: The text states "laboratory and density testing were not performed". The fact this was not done provides an incomplete demonstration the liner system as repaired will function as originally designed. The SLF is not simply subgrade for the geomembrane, but an integral part of a dual liner system intended to provide secondary containment for potential leakage through the geomembrane of metallurgical processing fluids by acting as a clay liner with minimum permeability requirements. The Division acknowledges the SLF material had been confirmed during the original construction to meet the technical specifications for gradation and plasticity because no new material was introduced. However, due to the known failure of the geomembrane, observed settling (which was not discussed in this report), a demonstration needs to be made that the SLF still meets the original specifications. Because the SLF material itself is the same as what was originally placed and approved by the Division, a verification of the minimum thickness and



compaction density would suffice for this type of demonstration. The Division will not accept the repairs to the liner system between the 9650 and 9750 elevation until it is demonstrated the original design specifications have been met or exceeded during the repair effort.

Appendices

2. Appendix D.3 80 mil LLDPE DSMS Geomembrane Roll QC Certificates

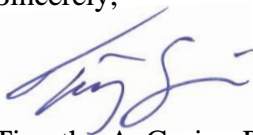
- i. The letter from TRI dated 1/29/2014 - final report of lab testing is for one Agru 80 mil Microspike LLDPE with Resin Lot #: CDG810350. This Resin Lot # differs from that given in Appendix D.1 - 80 mil LLDPE DSMS Inventory Control, which is: CJB810260 for all rolls. Please reconcile the lot numbers to be consistent between inventory control and what was tested in the laboratory.
- ii. The letter from Chevron Phillips dated 10/31/2017 gives exposure and aging results for:
Roll #: G17D000534, for Smooth, 40 mil
Roll #: G15B434055, for Smooth, 40 mil

This information differs from what is given in Appendix D.1 - 80 mil LLDPE DSMS Inventory Control: Roll #s: FND0010080002 thru 0008 and FND0010080012 thru 0028, all for Textured, 80 mil. Please explain why laboratory results for a different material was provided or provide appropriate laboratory data.

Pursuant to Rule 7.3.1(5), no chemicals used in the extractive metallurgical process or toxic or acid-forming materials ... shall be placed in constructed facilities until the Board or Office accepts the certification of the facility, or phase thereof, that precedes placement.

If you have any questions or need further information, please contact me at (303)866-3567 x8169.

Sincerely,



Timothy A. Cazier, P.E.
Environmental Protection Specialist

ec: Russ Means, DRMS
Michael Cunningham, DRMS
Amy Eschberger, DRMS
Elliott Russell, DRMS
DRMS file
Meg Burt, CC&V